

From glowbugs@theporch.com Thu Oct 31 09:46:26 1996  
Return-Path: <glowbugs@theporch.com>  
Received: from uro (localhost.theporch.com [127.0.0.1]) by uro.theporch.com  
(8.8.2/AUX-3.1.1) with SMTP id JAA00610; Thu, 31 Oct 1996 09:38:39 -0600 (CST)  
Date: Thu, 31 Oct 1996 09:38:39 -0600 (CST)  
Message-Id: <199610311538.JAA00610@uro.theporch.com>  
Errors-To: conard@tntech.campus.mci.net  
Reply-To: glowbugs@theporch.com  
Originator: glowbugs@theporch.com  
Sender: glowbugs@theporch.com  
Precedence: bulk  
From: glowbugs@theporch.com  
To: Multiple recipients of list <glowbugs@theporch.com>  
Subject: GLOWBUGS digest 337  
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas  
X-Comment: Please send list server requests to listproc@theporch.com  
Status: 0

### GLOWBUGS Digest 337

Topics covered in this issue include:

- 1) Re: BAs Forever! HB Tubes  
by steve@hi.com (Steve Byan)
- 2) Re: Curling Up With A Good Read  
by jeffd@coriolis.com (Jeff Duntemann)
- 3) Night Deposit Made at the All-Night Tube Bank  
by jeffd@coriolis.com (Jeff Duntemann)
- 4) Re: Night Deposit Made at the All-Night Tube Bank  
by jeffd@coriolis.com (Jeff Duntemann)
- 5) Tube Reactivation Info Sheet - 1927 ARRL Handbook  
by rdkeys@csemail.cropsci.ncsu.edu
- 6) What is a 1229 tube?  
by rdkeys@csemail.cropsci.ncsu.edu
- 7) Copyright Info  
by Ornitz\_Barry <ornitz@eastman.com>
- 8) 6AE8/X77 tube  
by davemed@ix.netcom.com
- 9) Re: BAs Forever! HB Tubes (fwd)  
by Jeffrey Herman <jherman@hawaii.edu>
- 10) tubes  
by dstiles@juno.com (Stiles D Daniel)
- 11) Regens & Things that go "SSsssssst" in the night  
by k7yha@juno.com (Richard H. Arland)
- 12) Re: Glowbugs admin ... please read.  
by k7yha@juno.com (Richard H. Arland)
- 13) tubes  
by kellymed@tmxbbris.mhs.oz.au (Murray Kelly)

- 14) COnnector needed  
by "Brian Carling" <bry@mnsinc.com>
- 15) Schematic/manual photocopy needed  
by "Brian Carling" <bry@mnsinc.com>
- 16) Thordarson Transformer Info Sheet  
by djw@unlinfo.unl.edu (Daniel Wright)
- 17) Tnx for Absolution  
by "Edward A. Stagl" <edstagl>
- 18) input tuning of 4cx250  
by Rossi Giuseppe <g.rossi@crf.it>

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Date: Wed, 30 Oct 1996 10:49:49 -0400  
From: steve@hi.com (Steve Byan)  
To: boatanchors@theporch.com, glowbugs@theporch.com  
Subject: Re: BAs Forever! HB Tubes  
Message-ID: <9610301551.AA03427@loki.hi.com>

(A copy of this message has also been posted to the following newsgroups:  
rec.radio.amateur.boatanchors)

[a thread started on the boatanchors list about homebrewing tubes]  
Bill Meara <74537.1100@compuserve.com> wrote:  
>I came across an article [in the April 1965 issue of QST ]  
>that hints at a way to keep our beloved  
>Boatanchors on the air forever! "Vacuum Tubes the Hard Way - Building  
>Home-made Tubes" describes the successful tube-making efforts of Sam Diaz  
>Pumara, ex LU2DH. Sam built lots of receiving and transmitting tubes in his  
>basement shop using mid-60's technology.

If you're contemplating homebrew tubes, the "Amateur Scientist" column of the current issue of Scientific American describes a simple high-vacuum pump and a package deal for a kit of the items made of unobtainium. It's a sorbtion pump, so the only "unobtainium" needed is the molecular sieve and the vacuum guage, and I gather they really aren't that hard to find. The scheme looks like fun; you get to fill your beer cooler with liquid nitrogen.

BTW, Lindsay Publications has a reprint of "Experimental Physics" which has a good intro to vacuum systems. Lindsay also offers a modern text on experimental physics (the title of which escapes me) that has a good list of sources.

Regards,  
-Steve

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Steve Byan  
Hitachi Computer Products (America), Inc.  
1601 Trapelo Road  
Waltham, MA 02154

internet: steve@hi.com  
phone: (617) 890-0444  
FAX: (617) 890-4998

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Date: Wed, 30 Oct 1996 08:54:38 -0700  
From: jeffd@coriolis.com (Jeff Duntemann)  
To: jkh@lexis-nexis.com  
Cc: glowbugs@theporch.com  
Subject: Re: Curling Up With A Good Read  
Message-ID: <1.5.4.32.19961030085049.00ed6e1c@ntserver.coriolis.com>

At 09:38 AM 10/30/96 -0600, you wrote:

>Just took delivery on a package from Lindsay Publications and now I can't  
wait for a  
>chance to curl up with one of these wonderful books. I got copies of Elmer  
Buchers's  
>"Wireless Experimenter" and his "Vacuum Tubes in Wireless Communication".  
Also got two  
>of the nice little Gernsback Educational Library reprints, NO. 1 and 2,  
"How To Build  
>4 Doerle Short Wave Sets", and "How To Make The Most Popular All Wave 1 and  
2 Tube  
>Receivers". The Bucher books were \$13.95 and \$12.95 and the Gernsback books  
were \$2.25  
>each. What a bargain! Lindsay is at PO Box 538, Bradley, IL 60915-0538,  
815/935-5353,  
>and have a swell catalog. Bob Keys is right, the Buchers books seem like a  
must read  
>for glowbuggers! Ya' oughta have a catalog.

Nay, you MUST have a catalog. I'm sure I've dropped over a kilobuck in  
Lindsay's lap over the years. Most of my reprint (rather than yellowed and  
falling apart) glowbug literature has come from this odd little place. I  
didn't see RADIO FOR THE MILLIONS in their recent catalog, but I bought mine  
there and if it's still in print that's one I would buy. It's a little  
newer than the others (about 1940) and has more sophisticated circuits than  
all the 1924-vintage books, as well as calling out parts that are slightly  
easier to find.

I actually have an original (yellowed and falling apart) copy of that 4  
DOERLE SHORTWAVE SETS book that my father bought in 1936. Nice little book,  
especially if you have good eyes. (Very small print and fine lines.)

But again, essential for your catalog. And y'awl DO have a catalog file, no?

--73--

--Jeff Duntemann KG7JF  
Scottsdale, Arizona

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Date: Wed, 30 Oct 1996 08:59:10 -0700  
From: jeffd@coriolis.com (Jeff Duntemann)  
To: glowbugs@theporch.com  
Subject: Night Deposit Made at the All-Night Tube Bank  
Message-ID: <1.5.4.32.19961030085521.00f0b880@ntserver.coriolis.com>

Hi gang--

I decided to send the box of TV rectifier and oddball TV tubes to the tube bank called out in a recent QST and mentioned here in an earlier message. I had missed that, but it makes a certain sense. Guys who are restoring classic TVs might be able to make use of them.

Thanks to everybody who offered to take them. This way, I felt, would expose the tubes to the most possible "new homes." And really, they are \*not\* anything you would ever use in either transmitters or receivers.

--73--

--Jeff Duntemann KG7JF  
Scottsdale, Arizona

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Date: Wed, 30 Oct 1996 10:02:03 -0700  
From: jeffd@coriolis.com (Jeff Duntemann)  
To: Roy Morgan <morgan@speckle.ncsl.nist.gov>  
Cc: glowbugs@theporch.com  
Subject: Re: Night Deposit Made at the All-Night Tube Bank  
Message-ID: <1.5.4.32.19961030095814.00f0de48@ntserver.coriolis.com>

>>I decided to send the box of TV rectifier and oddball TV tubes  
>  
>.... And really, they are  
>>\*not\* anything you would ever use in either transmitters or receivers.  
>  
>Hmmm .... Most everthing around here uses 5U4's!

>(I've got a bushel of TV pulls - a lifetime supply.)

That box contained nothing as valuable as a 5U4. There is a class of high-voltage TV rectifier tubes with a 1 volt filament and a plate cap, I assume (I know NADA about TV internals) to rectify the CRT high voltage out of the flyback. 1G3 is typical, but there are a bunch of them. Those, and those other lower-voltage rectifiers with a spiral filament (no numbers pop into my mind) are most of what I had in the box. 5U4s are definitely keepers in this business; the 5U4 is, after all, Son of 80.

Nothing truly useful got away in that one.

--73--

--Jeff Dunteemann KG7JF  
Scottsdale, Arizona

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Date: Wed, 30 Oct 1996 15:20:12 -0500 (EST)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: glowbugs@theporch.com  
Cc: rdkeys@csemail.cropsci.ncsu.edu ()  
Subject: Tube Reactivation Info Sheet - 1927 ARRL Handbook  
Message-ID: <9610302020.AA107513@csemail.cropsci.ncsu.edu>

While perusing an ancient 1927 ARRL Handbook, I found the following info on reactivation of thoriated tungsten tube filaments, that might be of use. Another good source of such info is Ghirardi's ``Radio Physics Course''. Strip here and print out if needed.....73/ZUT DE NA4G/Bob UP

\*\*\*\*\*

#### TUBE REACTIVATION

When the filament emission of ``XL''-filament tubes becomes reduced from many hours of normal use or from operation at excessive plate voltage and plate current (this happens most often due to misadjustment or overloading of the transmitter) it is necessary to run the tubes at a higher filament voltage than normal for some time WITH THE PLATE VOLTAGE OFF and the grid disconnected. This process tends to bring active thorium to the surface of the filament, renewing the available electron supply under operating conditions.

XL-filament tubes (having thoriated filaments) must be differentiated from tubes having oxide-coated filaments (Western Electric) which cannot be reactivated. In long-continued normal operation there is a gradual decrease in the plate current resulting in gradually decreasing output. The old types of tungsten-filament (bright) tubes have a more limited emission remaining constant until burn-out of the filament. XL-filament tubes may still glow at their normal dull brilliancy after continued use and after the electron emission is practically zero. They may be reactivated several times, doubling or tripling tube life.

Various ``reactivators'' on the market differ somewhat as to the flashing voltage and time and the subsequent ageing voltage and time. Tubes of similar type made by different concerns also differ somewhat in filament characteristics. The tubes must be connected in a circuit so that the cooking or ageing process at once follows flashing. While flashing and cooking are recommended for receiving tubes of the XL-type whose emission has fallen below manufacturer's ratings, cooking for longer periods (several hours in some cases) without the flashing process is to be preferred for transmitting, rectifier and power amplifier tubes.

The tubes should test up to manufacturer's ratings after reactivation. The grid and plate may be tied together and connected through B-battery, milliammeter and switch to filament for testing emission. Under these conditions the switch should be closed very briefly while the emission current is measured. 50-volts (not more) is a convenient B-value for 3- and 5- volt tubes. With filament normal at 5 volts the following MINIMUM values may be expected: 200-A, 12 m.a.; 201-A, 25 m.a.; 171, 50 m.a. A UX-210 with 6 volts on the filament and 100 volts on the plate and grid should pass 100 m.a. Remember that the B-supply source must be of low internal resistance, however.

#### TUBE REACTIVATION TABLE

TUBE	Flashing		Ageing	
	Volts	Time	Volts	Time
UV-199	12	1 sec.	4	5-8 min.
UX-199				
C-299				
CX-299				

UX-171	18	1 sec.	7	5-8 min.
UX-200A				
UX-201A				
CX-300A	18	1 sec.	7	5-8 min.
CX-201A				
CX-371				
UX-210		no flashing	9	15-30 min.
UX-216B				
CX-310				
CX-316B				
UX-213		no flashing	6	15-30 min.
CX-313				
203-A		no flashing	12	30 min.

This information is from the 1928 American Radio Relay League  
 ``The Radio Amateur's Handbook'', 3rd ed., pages 204 and 205.

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 Date: Wed, 30 Oct 1996 16:35:22 -0500 (EST)  
 From: rdkeys@csemail.cropsci.ncsu.edu  
 To: glowbugs@theporch.com  
 Cc: rdkeys@csemail.cropsci.ncsu.edu ()  
 Subject: What is a 1229 tube?  
 Message-ID: <9610302135.AA107697@csemail.cropsci.ncsu.edu>

I found an old 4 pin ST tube with a plate cap, marked 1229, by Sylvania.  
 It looks suspiciously like an old Beckman DU spectrophotometer tube, because  
 of a wire wrapped around the base of the glass for shielding purposes.  
 Is there a cross or similar standard tube comparable to it?  
 Maybe it would make a good regen detector tube?

Bob/NA4G  
 rdkeys@csemail.cropsci.ncsu.edu

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 Date: Wed, 30 Oct 1996 17:57:12 -0500  
 From: Ornitz\_Barry <ornitz@eastman.com>  
 To: glowbugs@theporch.com

Subject: Copyright Info  
Message-ID: <199610302257.AA23077@eastman.com>

I was afraid this would happen - everyone is trying to interpret the copyright rules but few have even a little understanding of them. I thought I understood the fundamentals too - that is, until I started researching the actual rules. Allow me to address a few particular points, please. I hope my upcoming FAQ will answer the rest of the questions (I have been working on it intermittently for at least a month now). I do not wish to include names in the following, only issues.

Maybe only original designs or modifications of published ones, or something.

This is fine if the authors give you their designs for distribution. With modifications, if they are not substantial and a significant portion of earlier work is included, you should be careful.

Well guys I don't think he can go wrong with scans of hand-drawn schematics, ESPECIALLY since he doesn't plan to sell them or to distribute them outside of a small circle of non-commercial hobbyists who are not doing anything for profit.

As long as the hand-drawn schematics are original... Hand drawing a schematic from QST is not OK for distribution without permission.

I know also that the world is just not exactly sweating it over the commercialization of technical ideas that went by the wayside 30-50 years ago! There is no exchange of money involved, just thoughts.

The problem is that the law really does not care whether money is involved or not to decide copyright infringement. It might affect the penalties, however.

I have to agree with this one. Somewhere in copyright law is loopholes for non-profit use. Home video & audio tapers get away with it all the time. I don't see any alt.binaries.pictures.etc posters going to jail either. None of the used record dealers get hassled by the record companies at collectors shows. Yes I can see getting permission BEFORE selling a book full of other peoples schematics but offering scanned copies that aren't sold? Thats overreacting folks!

The so-called loophole is known as "fair use" doctrine and it has nothing to do with commercial or noncommercial use. It relates to

individual use for certain activities such as personal study. Note that I said INDIVIDUAL use. Used records are just like used books; the author has already collected his fee. But while you can make a copy for yourself, you cannot make copies for others. There have been some significant fines levied on people who illegally distributed copyrighted material (including scanned photographs) over the Internet. Playboy and Microsoft are two companies who have won judgments.

Well, technically, it is illegal to copy a video tape or to tape a phonograph record or CD even though it's done all the time. I think the answer is - is it for educational purposes? The copyright laws are different in that case.

Copying a video tape or phonograph record is perfectly legal under the right conditions, i.e. you already own the original. Copyright rules apply to educational uses the same as they do for commercial uses.

Where would I check out the copyright law anyway? I want to read the whole thing.

Having searched for this information, I can say that just reading the law alone is not sufficient. Much of the actual implementation of the law is determined by the collected rulings of court cases. This is why I suggested that everyone cool their heels for a while and wait until I can finish the FAQ I am writing. Remember this is not a high priority project (but I will gladly turn it over to anyone else who wants to work on it). Certain aspects of the Berne Convention are still being decided in the courts today, and the rapid rise in electronic publishing and distribution have only clouded the issues. Even finding out what is covered by the copyright act and what is not can be difficult to answer. Conard Murray asked me about old books, like those John Heck mentioned that Lindsey had republished:

Do you think checking the Library of Congress listings would tell us if someone's great-great grandson renewed the copyright on a book?

Conard is on the right track here as the Copyright Office falls under the jurisdiction of the Library of Congress. I am still looking into this question.

The Copyright Office does have a number of documents available to help explain copyright law. Most are available over the Internet (start searching at <locis.gov>). There is also an existing copyright FAQ by Brad Templeton that is posted on Usenet frequently in the following groups:

news.announce.newusers, news.admin.policy, misc.legal,

misc.legal.computing, misc.int-property, misc.answers,  
news.answers

Look for an article entitled:

Copyright Myths FAQ: 10 big myths about copyright explained.

This subject is NOT something I enjoy writing about. I pointed out a few things to Jack Hill on Boatanchors and Jack immediately "volunteered" me to write something up. The purpose is to help folks to understand the law and how it applies to our hobby (and to make sure the mailing lists do not become guilty by association too).

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

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Date: Wed, 30 Oct 1996 15:40:01 -0800  
From: davemed@ix.netcom.com  
To: glowbugs@theporch.com  
Subject: 6AE8/X77 tube  
Message-ID: <1996113016375876334@ix.netcom.com>

I have here a dozen of what I thought were 6EA8 tubes to substitute for the 6U8s in my KWM2-A because 6U8s have been a pain over the years. So I replaced the 4 6U8s with what I thought were 6EA8s. Imagine my surprise when I turned the radio on and it was as dead totally and absolutely. PANIC!!!!  
So I pulled out one of the tubes and inspected it more carefully. Clearly said 6AE8/X77. Does anyone know what this tube is for. I can't find it in any of my manuals. The tubes were manufactured by AWV (RCA affiliate in Australia) so they may be some British type.  
73 de Dave KI6QE/7

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Date: Wed, 30 Oct 1996 15:29:32 -1000  
From: Jeffrey Herman <jherman@hawaii.edu>  
To: Glowbugs List <glowbugs@theporch.com>  
Subject: Re: BAs Forever! HB Tubes (fwd)  
Message-ID: <Pine.GSO.3.93.961030152710.7298A-100000@uhunix2.its.Hawaii.Edu>

There is an ongoing discussion of homebrewing tube on the BA list (it comes up about every 6 months or so). If you're not sub'd to that list the \$12 per year is surely worth every cent (and then some!).

KH2PZ

----- Forwarded message -----

Date: Wed, 30 Oct 1996 14:15:16 -1000  
From: Richard Hager <rhager@millcomm.com>  
To: Multiple recipients of list <boatanchors@theporch.com>  
Subject: Re: BAs Forever! HB Tubes

William Hawkins wrote:

>  
> The April issue, eh? I think our tubes require a better vacuum than what one  
> can make at home - even if you could find the other exotic materials that you'd  
> need. But if we could convince the guitar-amplifier crowd that homemade tubes  
> sound 'better', then maybe they'd quit consuming (as in burning up) good tubes  
> by exceeding their ratings.--

Welllll, I don't know. You can pick up surplus/used lab vacuum pumps for a few hundred bucks that go down to, I think, .1u or so. If I understand correctly, a mech pump only goes down so far, after that you need a sorbtion (sp?) pump, which is like a giant recyclable 'getter'.

Speaking of which, I think that some getter materials adsorb an amazing mass of gas. It may well be feasible to design in a fairly large getter, and then the mech vacuum pump may take us far enough down. Frankly, my concern is in effective and -consistent- cathode coating. And in winding those tiny grid wires. I'm not sure any of us have the eyes to do that any more!!

For the past 2 years I'd been toying with this concept anyway, but specifically for cheap 2kw tubes for induction heat treating of punches/cutting tools. I reasoned that copper tubing and metal screen material just might cut it, since I only need operation to a couple hundred khz, but I hadn't figured out the cathode yet. It's quite possible that that sort of crude construction would work fine up to 160 or even 80M. But over that, I think it would take more traditional glass/fine wire/close spacing, etc...

This is fascinating, whatever comes out of it!

Richard Hager

+ Ah-ha! Design Group, Inc. -  
+ Precision CNC Technology, since 1991 -  
+ 612-641-1797, Fax: 612-641-8681 -  
+ "I just like to build stuff" So... -  
+ for CNC info, don't email me, call -  
+ or email Ah-ha! directly. Thanks! -  
+ www.gdic.com/ahha email: ahha@gdic.com -

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Date: Thu, 31 Oct 1996 00:16:24 EST  
From: dstiles@juno.com (Stiles D Daniel)  
To: glowbugs@theporch.com  
Subject: tubes  
Message-ID: <19961030.224025.6847.23.dstiles@juno.com>

Been following the thread and have already sent a couple of private messages.

I try to repair equipment for school ham club from some of the donations we get.

Looking for a pair of 6146's, a 6EA8 and a 6AU6 to put an old Heath SB-401 back on the air.

I have a pair of finals from a Swan 350 too far gone to repair plus some mechanical parts for the 350 if anyone needs them

tnx and 73  
Dan KB1BG

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Date: Thu, 31 Oct 1996 02:30:25 PST  
From: k7yha@juno.com (Richard H. Arland)  
To: glowbugs@theporch.com  
Subject: Regens & Things that go "SSsssssst" in the night  
Message-ID: <19961031.030649.6415.22.k7yha@juno.com>

Gang:

OK shoot me! Go ahead. I've been bad. Very, VERY bad. I haven't been saving the postings about regens. Now I decided (today) to take the old 3A4 regen Rx out of the cabinet and get it to play right after about a year of procrastination, and I realize that I am in need of info on the little rush box.

The circuit is out of a CQ article by Dave Ingram where he showed a little 1 tube Xtal Tx and a 3A4 regen set along with a bottle of Tobasco (tm) sauce as the lead graphic.

My little regen does not have a smooth regen action. Volume is very low and tuning range is limited. Somewhere I thought I saw a post about this circuit and the author said that Ingram's coil data was all wrong...especially the tickler....it should only be 3 or 4 turns. Just enuff to get the thing to go into regeneration.

Also, I want to rewind the main coil, and have come up with an inductive value of 4.3 microhenrys (using a 10-120 pf variable cap) to cover 3.5 mc (GOD! it feels soooooo good to say megacycles instead of HERTZ - YUCK!).

Do any of the old HBs have wire size vs. turns per inch data that will give me an idea of how many turns on a 1 inch coil form to wind this coil?

Ingram says (in his article) that 9 -18 volts is all you need on the plate of the 3A4. I started with 45 volts and went up to 90 volts and at 90 volts it works pretty good, condisdering all the tuning range where I hear anything on is only about 1./8 of a turn on the dial!

All I wanna do is get this little jewel working along with a small 1 toob transmitter to say that I have a early novice rig on the air!

(Boatanchor Bob, where are you?!?!?)  
73 rich K7YHA

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Date: Thu, 31 Oct 1996 03:04:53 PST  
From: k7yha@juno.com (Richard H. Arland)  
To: conard@tntech.campus.mci.net  
Cc: glowbugs@theporch.com  
Subject: Re: Glowbugs admin ... please read.  
Message-ID: <19961031.030649.6415.23.k7yha@juno.com>

Conard & Gang:

My name is Rich Arland and the call is (for now) K7YHA. I am expecting a "real" 1 X 2 extra class call in the next few days (according to Rick Lindquist, KF4V, at League HQ the FCC is about the release the Gate 2 vanity calls in the next day or so).

My main interest up until August this year was QRP. I have authored 3 books on low power communications and done 3 feature articles for QST (cooberated on a 4th), and a two piece for CQ. I was a contributing editor for Worldradio magazine for 9 years: 7 as the QRP Guru and 2 as the SPACECOM weenie.

Since coming back from a Zuni Loop QRP Mountain Expeditionary Force Field Day in S. California, I have changed directions and am now doing boatanchors exclusively. The QRP station radios (a Wilderness Sierra (with the KC-2 readout/keyer/power - S-meter) and the NC-40A) are in a box in the basement....where they will remain until FD '97.

I have restored a Hallicrafters SX-140/HT-40/HA-1 station, two Hammarlund HQ-170ACs, a Halli SX-71 (most recently...note the loss of cranial hair), a Knightkit TR-108 2 mtr AM rig and just procured the matching TR-106 6 mtr rig. Going to try some 2 and 6 mtr AM and CW. Mite even try using the TR-108 as a RS-10 Mode A uplink transmitter....just gotta key the buffer. Have a pair of general coverage Heathkits from 1961: GR-81 superregen & a GR-91 5 tube superhet also working. A partially completed GR-78 portable SW receiver by Heath is still on the workbench....one of these days.... A B&W 5100B AM TX and two Heath SB/HW series transceivers are two projects also in the "one of these days" catagory.

I have a Halli SX-117/HT-44/PS-150 station coming in in a week or two. Both of these rigs work, so this won't be a restoration, just a "plub-and-play" BA station. The pair will be my main HFstation. Still looking for a HT-45 LOUDENBOOMER 500 watt desk top linear (to cosmetically match my HT-44/SX-117 station, of course!).

My current restoration project is a Halli S-51 (VLF to 12 mc) receiver. This receiver I'm planning on using to track VLF lightening events and D-layer density measurements as part of a Society of Amateur Radio Astronomers project.

I have resurrected my 3A4 regen receiver and am trying to get it to work....despite Dave Ingram's article....I want to team that up with a little 1 tube tx for some fun on the Novice bands.

73 rich K7YHA

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Date: Thu, 31 Oct 96 20:48:36 AES  
From: kellymed@tmxbbris.mhs.oz.au (Murray Kelly)  
To: glowbugs@theporch.com  
Subject: tubes  
Message-ID: <231@tmxbbris.mhs.oz.au>

Subject: 6AE8/X77 tube

>I have here a dozen of what I thought were 6EA8 tubes to substitute for the >6U8s in my KWM2-A because 6U8s have been a pain over the years. So I replaced

>6AE8/X77. Does anyone know what this tube is for. I can't find it in any of my >manuals. The tubes were manufactured by AWV (RCA affiliate in Australia) so >they may be some British type.  
>73 de Dave KI6QE/7

Dave,

I have looked at my books here and the scene is confusing.  
The 6U8 is, as you know, a medium u triode/RF pentode  
The 6AE8 is a triode/hexode. An equivalent given is the X79  
Both of these are noval based,

The X77 is a heptode with a 7 pin base. An american equivalent given  
as a 6BE6.

I hope this helps you - it doesn't do much for me!

Bob Keys - can't find a 1229 anywhere.

Cheers.

Murray Kelly vk4aok

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Date: Thu, 31 Oct 1996 05:26:54 +0000  
From: "Brian Carling" <bry@mnsinc.com>  
To: glowbugs@theporch.com  
Subject: COnnector needed  
Message-ID: <199610311223.HAA08819@user2.mnsinc.com>

Hello guys:

I need a 12 pin Cinch-Jones connecter FEMALE, Cable end.  
This is the P.S. connector used on the old WRL DUO-BANDER 84 rig I  
have acquired.

I have a bunch of other old BA parts I  
could trade for it or whatever.

Any help or leads would be appreciated.

Please e-mail me at bry@mnsinc.com

73 de Bry - G3XLQ / W4 & AF4K  
73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA  
bry@mnsinc.com  
\*\*\* See the great ham radio resources at:  
<http://www.mnsinc.com/bry/>

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Date: Thu, 31 Oct 1996 05:26:54 +0000  
From: "Brian Carling" <bry@mnsinc.com>  
To: glowbugs@theporch.com  
Subject: Schematic/manual photocopy needed

Message-ID: <199610311223.HAA08822@user2.mnsinc.com>

Hello guys -

I need a photocopy and/or manual for a WRL Duobander 84 rig.  
I will pay the usual copying/postage expenses if anyone can help me out.

Please e-mail me at: bry@mnsinc.com

Thanks - AF4K / G3XLQ

Bry

73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA  
bry@mnsinc.com

\*\*\* See the great ham radio resources at:  
<http://www.mnsinc.com/bry/>

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Date: Thu, 31 Oct 96 07:06:00 CST  
From: djw@unlinfo.unl.edu (Daniel Wright)  
To: glowbugs@theporch.com  
Subject: Thordarson Transformer Info Sheet  
Message-ID: <9610311306.AA11889@unlinfo2.unl.edu>

Greetings!

Whilst diggin' in the bottom of a box of recently aquired  
junk....I mean goodies, I found a Thordarson Meissner  
Operating Data Sheet for some of their power transformers.  
To quote the sheet: "The following chart gives color codes  
and voltage/current ratings of the THORDARSON Universal  
Power Transformer line."...etc. If this seems like it might  
be useful information, I would be happy to send a photocopy  
to anyone sending me an SASE. Thanks.....

My info is:

Dan Wright  
1924 S. 77th St.  
Lincoln, Nebraska  
68506-1805

Take care....

73 de Dan -- WA0JRD ..  
djw@unlinfo.unl.edu

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Date: Thu, 31 Oct 1996 13:47:52 +0000  
From: "Edward A. Stagl" <edstagl>  
To: glowbugs@theporch.com  
Subject: Tnx for Absolution  
Message-ID: <19961031134749.AAA18782@LOCALNAME>

At 08:09 PM 10/28/96 +0000, you wrote:  
>At 05:55 PM 10/27/96 -0600, you wrote:  
>  
>... more recently,  
>>a solid state QRP transceiver ( sorry for the 2 counts of blasphemy )...  
>>that produced a few thrills of it's own !!  
>>  
>>Now, in atonement, I'm starting to rebuild a Knight T-60 transmitter.  
>  
>You are forgiven of all you sins.  
>  
>In further atonement, you will keep the group posted as to your progress,  
>accept all offers of parts, information, and advice, and put the thing on  
>the air whenever you get around to it.  
>  
>Go in peace.  
>  
>(and whatever you do, Keep em glowing!)  
>  
>-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899  
>(National Institute of Standards and Technology, formerly NBS)  
>301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

Thanks for your absolution ( Fr.) Roy !! I hope I can further resist the temptation of answering a QNI from a QRP net with 100 mw ( or LESS ) ..and for naught but a scrap of paper !! But with help from the group and those like Jeff kg7jf and Steve wa0bpu I'll have the T-60 up and glowing in no time.

Rich k74ha has posted acknowledgement for your absolution also.  
I wonder what sins he has committed ?? ( 72.5 ?? )

73 Ed N2GVS

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Date: Thu, 31 Oct 1996 16:15:00 -0800 (PST)  
From: Rossi Giuseppe <g.rossi@crf.it>  
To: "'glowbugs@theporch.com'" <glowbugs@theporch.com>

Subject: input tuning of 4cx250  
Message-ID: <32794307@pced01.crf.it>

hello everyone

I'm trying to build a linear tube  
amplifier with a couple of 4cx250 for 2 meter  
band.

The tubes, feeded on the grid, are coupled in parallel, and  
i have a question about the input  
tuning circuit:

I've seen a project in which the  
autor tune the input circuit  
by a lambda/2 long "microstrip", directly  
connected at the tube side on the grid,  
while at the front end side there is a shunt  
cap.

The question is : since the metal strip has a noticeable physical length  
more than 40 cm ( exactly 44cm) and i wish to avoid that strip ( otherwise  
the amplifier is to cumbersome )

can anyone explain me why to use a lambda/2 line ?  
A lambda/2 line doesn't transfor the input impedance, so why to use it ?  
what about of using a line with a dielectric ( e.g. teflon ) ?

thank you  
iw1clx, Giuseppe Rossi

email g.rossi@crf.it

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End of GLOWBUGS Digest 337  
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